

## **AMENDMENTS TO THE SPECIFICATION**

Please replace paragraph 1, page 9 (page 9, lines 2-8) , with the following amended paragraph:

The housing 220 contains a conventional ~~Banbury~~ BANBURY mixer. The mixing of rubber stock and the mixing of plastic stock in ~~Banbury~~ BANBURY mixers is quite well known by those skilled in the art. The ~~Banbury~~ BANBURY mixer is named for its inventor, Mr. Banbury. A typical ~~Banbury~~ BANBURY mixer is a large, internal mixer, similar to a doughnut mixer, with two rotors revolving in opposite directions and at different speeds in a water-cooled chamber. Various chemicals and materials are added to the ~~Banbury~~ BANBURY mixer through a conveyor at the top of the machine, to mix up a batch of stock (BANBURY is a registered trademark of Farrel Corporation).

Please replace paragraph 2, page 9 (page 9, lines 9-13) , with the following amended paragraph:

In mixing a batch of stock in a ~~Banbury~~ BANBURY mixer, the materials are forced between the rotors, and also between the walls of the ~~Banbury~~ BANBURY and the rotors, by a lid operated by a hydraulic ram (BANBURY is a registered trademark of Farrel Corporation). While the heat caused by the pressure of the hydraulic ram and by friction tends to maintain the temperature of the mixed material in the desired range of 380°F - 440°F, one or more heaters can be added to the system as desired.

Please replace paragraph 3, page 9 (page 9, lines 14-16) , with the following amended paragraph:

Once a batch of material has been mixed in the ~~Banbury~~ **BANBURY** mixer located in the housing 220, a door is opened at the bottom of the mixer to allow the material to enter the piping 80 and the diverter 76, also illustrated in **Fig. 4** (BANBURY is a registered trademark of Farrel Corporation).

Please replace paragraph 4, page 9 (page 9, lines 17-25) , with the following amended paragraph:

A ~~Banbury~~ **BANBURY** mixer has been described in the literature as being a batch-type mixing machine named after its inventor which has been widely used in the rubber industry since 1920 for high-volume production (BANBURY is a registered trademark of Farrel Corporation). It will also accept plastic molding powders. Its chief feature is an enclosed barrel-shaped chamber in which two rotors with oppositely curved contours rotate rapidly on a horizontal axis, first masticating the rubber and then efficiently incorporating the dry ingredients. Both steam and water jacketing are provided. Batches may be up to 1000 lb. A plunger at the entrance port rides on top of the batch to furnish enough pressure for proper mixing. A hydraulically operated discharge gate is located below the mixing chamber.

Please replace paragraph 5, page 9 (page 9, line 26 through page 10, line 1) , with the following amended paragraph:

Although the system of **Fig. 6** contemplates dropping the bale 214 of material from the mixer system 200 onto its conveyor belt 216 to transport the bale 214 to the ~~Banbury~~ BANBURY mixer in housing 220, an alternative embodiment would have the ~~Banbury~~ BANBURY mixer located below the trap door of the housing 202 to allow the bale 214 to drop into the opening 218 and eliminate the need for the conveyor belt 216 (BANBURY is a registered trademark of Farrel Corporation). Thus, alternative embodiments of the system 200 will be obvious to those skilled in the art, following a reading of this specification and its accompanying drawings.

Please replace paragraph 1, page 19 (Abstract of Disclosure; page 19, lines 3-11) , with the following amended paragraph:

Thermoplastic polymers, rubbery polymeric components and reinforcing fillers are mixed and heated to a range of 380°F to 440°F. The resulting mixture is then fed into a ~~Banbury~~ BANBURY mixer, with the resulting mixture fed into a diverter feeding two molds. The velocity of the piston of each mold being filled is controlled to thereby control the density of the molded product along its length (BANBURY is a registered trademark of Farrel Corporation). As each mold is filled, it is deposited in a cool water bath (50°F-60°F) while the next mold is being filled. The molds are sequentially transferred to an air cooling rack to complete the process. A texture, generally comprising indentations perpendicular to the longitudinal axis on the molded object, provides a frictional surface between the railway crosstie and the ballast beneath the crosstie.